

ABSTRACT

A nuclear power plant thermal efficiency diagnostic system 10 comprises: a feed-and-condensate-water-flow-rate-setting-means 13 for setting a flow rate of feedwater tentatively; a heat-exchange-on-heater-calculating-means 14 for calculating heat exchange quantities of the feedwater and the condensate water on a heater; a HP turbine power calculating means 15 for acquiring a calculated power value of a high pressure turbine ; a HP turbine power correcting means 16 for making the calculated power value of the high pressure turbine corrected; a HP turbine internal efficiency calculating means 17 for calculating an internal efficiency of the high pressure turbine; a steam condition on LP turbine inlet calculating means 18 for setting a condition of a steam on an inlet of a low pressure turbine; a LP turbine power calculating means 21 for acquiring a calculated power value of the low pressure turbine; a LP turbine power correcting means 22 for making the calculated power value of the low pressure turbine corrected; a LP turbine internal efficiency calculating means 23 for calculating an internal efficiency of the low pressure turbine; and a performance-deteriorating-element-specifying-means 25 for specifying an element which causes on deterioration of performance of the nuclear power plant.